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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,979	12/20/2000	Kazuhiko Takaishi	3408.65028	8648

24978 7590 05/08/2003

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CHICAGO, IL 60606

EXAMINER

WONG, KIN C

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 05/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/742,979	TAKAISHI, KAZUHIKO	
	<b>Examiner</b>	<b>Art Unit</b>	
	K. Wong	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### *Drawings*

The formal drawings have been approved by the draftsman.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims (1-15) are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (5822144).

Regrading claim 6: Takahashi et al discloses a head positioning control device (as depicted in figure 4 of Takahashi et al) for a disk device (as depicted in figure 5 of Takahashi et al) for positioning a head (element 14-1 in figure 5) to a predetermined position of a disk (element 66 in figure 5) by driving an actuator (element 58 in figure 5), including:

a demodulation circuit (element 44 in figure 4) which demodulates a position signal of the disk read by the head; and

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a control circuit (element 30 in figure 4) which calculates a demodulation position according to the demodulation result and controls the actuator for driving the head by calculating control quantity according to the position errors between the demodulation position and the target position (see col. 6, lines 10-39 and col. 9, lines 7-29 of Takahashi et al);

wherein the control circuit corrects the demodulation result with a correction value which depends on the moving speed of the head and calculates the demodulation position (see col. 9, lines 49 to col. 10, line 40 of Takahashi et al).

Regarding claim 7: Takahashi et al teaches that wherein the demodulation circuit demodulates a first position information and a second position information, which have different phases from each other, from the position signal; and the control circuit compares the first position information and the second position information, corrects the first position information with a first correction value, which depends on the moving speed of the head, according to the comparison result, and corrects the second position information with a second correction value, which depends on the moving speed of the head, according to the comparison result (in col. 7, line 25 to col. 8, line 21 of Takahashi et al).

Regarding claim 8: the limitations of wherein the demodulation circuit demodulates a track number and offset information from the position signal; and the control circuit selects the track number as the demodulation position when the moving speed of the head is faster than a predetermined speed, and calculates a demodulation position by correcting the offset information with a correction value which depends on the moving speed of the head when the moving speed

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of the head is slower than a predetermined speed are inherent because in col. 6, lines 10-39 where Takahashi et al describes the similar offset (phase) information in respective to various speeds.

Regarding claim 9: the limitations of wherein the demodulation circuit demodulates a track number and offset information from the position signal; and the control circuit corrects the offset information with a correction value where gain, which depends on the recording position of the offset information, is added to the moving speed of the head with the recording position of the track number as a reference are considered inherent because the track number (location or position) and offset information are inherently encoded in the positional burst signal and in the crossing points which is inherently well known by the artisan in the art, and therefore, the decoding (demodulating) the track number and offset information inherently known.

Regarding claim 10: Takahashi et al teaches that wherein the demodulation circuit demodulates a position signal of a magnetic disk read by a magnetic head (in col. 5, lines 37-42 of Takahashi et al).

Regarding claims 1-5: method claims (1-5) are drawn to the method of using the corresponding apparatus claimed in claims 6-10. Therefore method claims (1-5) correspond to apparatus claims (6-10) and are rejected for the same reasons of anticipation as used above.

Regarding claims 11-15: claims (11-15) have limitations similar to those treated in the above rejections, and are met by the references as discussed above. Claim 11 however also recites the following limitations of a disk drive which has met by Takahashi et al (in col. 5, lines 1-12 of Takahashi et al).

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3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aikawa (6122117), Dobbek et al (6219198) and Sasamoto et al (6239940) are cited for demodulating the PES signal with various speeds.

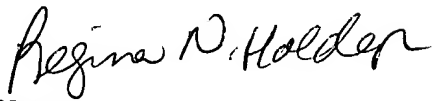
4. Any inquiry concerning this communication should be directed to K. Wong whose telephone number is (703) 305-7772.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Hudspeth, can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service whose telephone number is (703) 306-0377.

akw

5 May 03

  
REGINA N. HOLDER  
PRIMARY EXAMINER